

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/516,766

Source: PT

Date Processed by STIC: 3/29/06

ENTERED



PCT

RAW SEQUENCE LISTING

DATE: 03/29/2006

PATENT APPLICATION: US/10/516,766

TIME: 09:32:52

Input Set : A:\-464-2.APP

Output Set: N:\CRF4\03292006\J516766.raw

```

3 <110> APPLICANT: Pastan, Ira H.
4   Nagata, Satoshi
5   Onda, Masanori
6   Numata, Yoshito
7   Santora, Kenneth
8   Beers, Richard
9   Kreitman, Robert
10  Sinha, Abhishek
11  The Government of the United States of America
12  as represented by The Secretary of the
13  Department of Health and Human Services
15 <120> TITLE OF INVENTION: Anti-CD30 Stalk and Anti-CD30 Antibodies Suitable for
16  Use in Immunotoxins
18 <130> FILE REFERENCE: 015280-464200US
20 <140> CURRENT APPLICATION NUMBER: US 10/516,766
21 <141> CURRENT FILING DATE: 2004-12-03
23 <150> PRIOR APPLICATION NUMBER: US 60/387,293
24 <151> PRIOR FILING DATE: 2002-06-07
26 <150> PRIOR APPLICATION NUMBER: US 60/411,032
27 <151> PRIOR FILING DATE: 2002-09-16
29 <150> PRIOR APPLICATION NUMBER: WO PCT/US03/18373
30 <151> PRIOR FILING DATE: 2003-06-09
32 <160> NUMBER OF SEQ ID NOS: 41
34 <170> SOFTWARE: PatentIn Ver. 2.1
36 <210> SEQ ID NO: 1
38 <400> SEQUENCE: 1
W--> 39 000
42 <210> SEQ ID NO: 2
43 <211> LENGTH: 118
44 <212> TYPE: PRT
45 <213> ORGANISM: Mus musculus
47 <220> FEATURE:
48 <223> OTHER INFORMATION: heavy chain variable region (VH) of anti-CD30
49  monoclonal antibody (MAb) T6
51 <400> SEQUENCE: 2
52 Gln Val Gln Leu Lys Glu Ser Gly Pro Gly Leu Val Thr Pro Ser Gln
53 1          5          10          15
55 Ser Leu Ser Ile Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Lys Tyr
56          20          25          30
58 Ser Ile His Trp Val Arg Gln Pro Pro Gly Arg Gly Leu Trp Leu
59          35          40          45
61 Gly Met Ile Trp Gly Val Glu Asn Thr Asp Tyr Asn Ser Ala Leu Lys
62          50          55          60

```

RAW SEQUENCE LISTING

DATE: 03/29/2006

PATENT APPLICATION: US/10/516,766

TIME: 09:32:52

Input Set : A:\-464-2.APP

Output Set: N:\CRF4\03292006\J516766.raw

```

64 Ser Arg Leu Ser Ile Ser Lys Asp Asn Ser Lys Ser Gln Val Phe Leu
65 65 70 75 80
67 Lys Met Asn Ser Leu Gln Ser Asp Asp Thr Ala Met Tyr Tyr Cys Ala
68 85 90 95
70 Arg Lys Asp Leu Gly Leu Tyr Gly Met Asn Tyr Trp Gly Gln Gly Ile
71 100 105 110
73 Ser Val Thr Val Ser Ala
74 115
77 <210> SEQ ID NO: 3
78 <211> LENGTH: 120
79 <212> TYPE: PRT
80 <213> ORGANISM: Mus musculus
82 <220> FEATURE:
83 <223> OTHER INFORMATION: heavy chain variable region (VH) of anti-CD30
84 monoclonal antibody (MAB) T7
86 <400> SEQUENCE: 3
87 Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Val Arg Pro Gly Ser
88 1 5 10 15
90 Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Ser Tyr
91 20 25 30
93 Trp Met Asn Trp Met Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
94 35 40 45
96 Gly Gln Ile Tyr Pro Gly Asp Asp Asp Thr Asn Tyr Asn Gly Lys Phe
97 50 55 60
99 Lys Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr
100 65 70 75 80
102 Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
103 85 90 95
105 Ala Arg Arg Glu Thr Gly Arg Gly Ala Trp Phe Thr Tyr Trp Gly Gln
106 100 105 110
108 Gly Thr Leu Val Thr Val Ser Ala
109 115 120
112 <210> SEQ ID NO: 4
113 <211> LENGTH: 120
114 <212> TYPE: PRT
115 <213> ORGANISM: Mus musculus
117 <220> FEATURE:
118 <223> OTHER INFORMATION: heavy chain variable region (VH) of anti-CD30
119 monoclonal antibody (MAB) T13
121 <400> SEQUENCE: 4
122 Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Ala Lys Pro Gly Ala
123 1 5 10 15
125 Ser Val Lys Met Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Thr Tyr
126 20 25 30
128 Trp Met His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
129 35 40 45
131 Gly Tyr Ile Asn Pro Ser Thr Gly Tyr Thr Asp Tyr Asn Glu Lys Phe
132 50 55 60
134 Lys Asp Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr

```

RAW SEQUENCE LISTING

DATE: 03/29/2006

PATENT APPLICATION: US/10/516,766

TIME: 09:32:52

Input Set : A:\-464-2.APP

Output Set: N:\CRF4\03292006\J516766.raw

```

135 65              70              75              80
137 Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
138              85              90              95
140 Val Arg Arg Gly Ser Tyr Asp Gly Asn Pro Phe Ala Tyr Trp Gly Gln
141              100              105              110
143 Gly Thr Leu Val Ser Val Ser Ala
144              115              120
147 <210> SEQ ID NO: 5
148 <211> LENGTH: 117
149 <212> TYPE: PRT
150 <213> ORGANISM: Mus musculus
152 <220> FEATURE:
153 <223> OTHER INFORMATION: heavy chain variable region (VH) of anti-CD30
154     monoclonal antibody (MAb) T14
156 <400> SEQUENCE: 5
157 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
158 1              5              10              15
160 Ser Leu Lys Leu Ser Cys Gly Val Ser Gly Phe Thr Phe Ser Asp Tyr
161              20              25              30
163 Tyr Met Tyr Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val
164              35              40              45
166 Ala Ser Ile Ser Ser Gly Gly Ser Tyr Thr Tyr Tyr Ser Asp Ser Val
167              50              55              60
169 Lys Gly Arg Leu Thr Ile Ser Arg Asp Asn Thr Lys Asn Asn Leu Tyr
170 65              70              75              80
172 Leu Gln Met Ser Ser Leu Lys Ser Glu Asp Thr Ala Val Tyr Tyr Cys
173              85              90              95
175 Val Arg Gly Pro Gly Gly Val Leu Asp Tyr Trp Gly Gln Gly Thr Thr
176              100              105              110
178 Leu Thr Val Ser Ser
179              115
182 <210> SEQ ID NO: 6
183 <211> LENGTH: 119
184 <212> TYPE: PRT
185 <213> ORGANISM: Mus musculus
187 <220> FEATURE:
188 <223> OTHER INFORMATION: heavy chain variable region (VH) of anti-CD30
189     monoclonal antibody (MAb) T24
191 <400> SEQUENCE: 6
192 Gln Val Gln Leu Gln Gln Pro Gly Ala Glu Leu Val Arg Pro Gly Ala
193 1              5              10              15
195 Ser Val Lys Leu Ser Cys Lys Ala Ser Gly Tyr Ser Phe Thr Ser Tyr
196              20              25              30
198 Trp Ile Asp Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
199              35              40              45
201 Gly Asn Ile Tyr Pro Ser Asn Ala Tyr Thr Asn Tyr Asn Gln Lys Phe
202              50              55              60
204 Lys Asp Lys Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Ser Thr Ala Tyr
205 65              70              75              80

```

RAW SEQUENCE LISTING

DATE: 03/29/2006

PATENT APPLICATION: US/10/516,766

TIME: 09:32:52

Input Set : A:\-464-2.APP

Output Set: N:\CRF4\03292006\J516766.raw

```

207 Met Gln Leu Ser Ser Pro Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
208           85           90           95
210 Thr Ser Val Leu Asp Tyr Phe Tyr Ala Met Asp Tyr Trp Gly Gln Gly
211           100           105           110
213 Thr Ser Val Thr Val Ser Ser
214           115
217 <210> SEQ ID NO: 7
218 <211> LENGTH: 118
219 <212> TYPE: PRT
220 <213> ORGANISM: Mus musculus
222 <220> FEATURE:
223 <223> OTHER INFORMATION: heavy chain variable region (VH) of anti-CD30
224     monoclonal antibody (Mab) T25
226 <400> SEQUENCE: 7
227 Gln Val Thr Leu Lys Glu Ser Gly Pro Gly Ile Leu Gln Pro Ser Gln
228   1           5           10           15
230 Thr Leu Ser Leu Thr Cys Ser Phe Ser Gly Phe Ser Leu Asn Thr Ser
231           20           25           30
233 Gly Val Gly Val Gly Trp Ile Arg Gln Pro Ser Gly Lys Gly Leu Glu
234           35           40           45
236 Trp Leu Ala His Ile Trp Trp Asp Asp Asp Glu Arg Tyr Asn Pro Val
237           50           55           60
239 Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Ser Asn Gln Val
240           65           70           75           80
242 Phe Leu Lys Ile Ala Asn Val Asp Thr Ala Asp Ser Ala Thr Tyr Tyr
243           85           90           95
245 Cys Val Arg Ser Met Val Ala Trp Phe Pro Tyr Trp Gly Arg Gly Thr
246           100           105           110
248 Leu Val Thr Val Ser Ala
249           115
252 <210> SEQ ID NO: 8
253 <211> LENGTH: 125
254 <212> TYPE: PRT
255 <213> ORGANISM: Mus musculus
257 <220> FEATURE:
258 <223> OTHER INFORMATION: heavy chain variable region (VH) of anti-CD30
259     monoclonal antibody (Mab) control HeFi-I
261 <400> SEQUENCE: 8
262 Glu Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
263   1           5           10           15
265 Ser Leu Arg Leu Ser Cys Ala Thr Ser Gly Phe Thr Phe Ser Asp Tyr
266           20           25           30
268 Tyr Met Asn Trp Val Arg Gln Pro Pro Gly Lys Ala Leu Glu Trp Leu
269           35           40           45
271 Gly Phe Ile Arg Asn Lys Ala Asn Gly Tyr Thr Thr Glu Phe Ser Ala
272           50           55           60
274 Ser Val Met Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Gln Ser Ile
275           65           70           75           80
277 Leu Tyr Leu Gln Met Asn Thr Leu Arg Ala Glu Asp Ser Ala Thr Tyr

```

RAW SEQUENCE LISTING

DATE: 03/29/2006

PATENT APPLICATION: US/10/516,766

TIME: 09:32:52

Input Set : A:\-464-2.APP

Output Set: N:\CRF4\03292006\J516766.raw

```

278              85              90              95
280 Tyr Cys Ala Arg Asp Pro Pro Tyr Gly Asn Pro His Tyr Tyr Ala Met
281              100              105              110
283 Asp Tyr Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser
284              115              120              125
287 <210> SEQ ID NO: 9
288 <211> LENGTH: 121
289 <212> TYPE: PRT
290 <213> ORGANISM: Mus musculus
292 <220> FEATURE:
293 <223> OTHER INFORMATION: heavy chain variable region (VH) of anti-CD30
294     monoclonal antibody (Mab) CL2
296 <400> SEQUENCE: 9
297 Glu Val Gln Leu Lys Gln Ser Gly Thr Glu Leu Val Lys Pro Gly Ala
298 1          5          10          15
300 Ser Val Lys Leu Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
301          20          25          30
303 Trp Met His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
304          35          40          45
306 Gly Asn Ile Asn Pro Ser Asn Gly Gly Thr Asn Tyr Asn Glu Lys Phe
307          50          55          60
309 Lys Ser Lys Ala Thr Leu Thr Ile Asp Lys Ser Ser Ser Thr Ala Tyr
310 65          70          75          80
312 Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
313          85          90          95
315 Ala Arg Arg Thr Glu Thr Ala Gln Ala Ser Pro Phe Ala Tyr Trp Gly
316          100         105         110
318 Gln Gly Thr Leu Val Thr Val Ser Ser
319          115         120
322 <210> SEQ ID NO: 10
323 <211> LENGTH: 120
324 <212> TYPE: PRT
325 <213> ORGANISM: Mus musculus
327 <220> FEATURE:
328 <223> OTHER INFORMATION: heavy chain variable region (VH) of anti-CD30
329     monoclonal antibody (Mab) Ki-4
331 <400> SEQUENCE: 10
332 Gln Val Lys Leu Gln Glu Ser Gly Thr Glu Leu Ala Lys Pro Gly Ala
333 1          5          10          15
335 Ala Val Lys Met Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asp Tyr
336          20          25          30
338 Trp Met His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
339          35          40          45
341 Gly Tyr Ile Asn Pro Asn Thr Ala Tyr Thr Asp Tyr Asn Gln Lys Phe
342          50          55          60
344 Lys Asp Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr
345 65          70          75          80
347 Met Gln Leu Arg Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
348          85          90          95

```

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/516,766

DATE: 03/29/2006

TIME: 09:32:53

Input Set : A:\-464-2.APP

Output Set: N:\CRF4\03292006\J516766.raw

L:39 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (1) SEQUENCE: